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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,700

01/19/2005

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11/09/2007

EXAMINER

SEIFU, LESSANEWORK T

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

11/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/521,700

Applicant(s)

GUENTHER ET AL.

Examiner

Lessanework T. Seifu

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 01/19/05
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because of a typographical error in line 6 of the abstract. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wuest et al. (WO 00/12935) in view of Chu et al. (US 4,471,145) and O'Rear (US 6,392,108).

Note: The reference Wuest et al. (US 6,540,505) is used below as the US equivalent of Wuest et al. (WO 00/12935).

Regarding claims 1 and 11, Wuest et al. disclose a process to generate heat comprising burning a liquid fuel in a vaporizing burner, which is construed as applicants' evaporator burner oven, for heating systems in residential and non-residential buildings (see col. 4, line 32 to col. 5, line 24). Wuest et al. disclose that the burner is equipped with an ionization measuring device for flame detection (see col. 3, lines 15-25). Wuest et al. further disclose that the burner is suitable for burning extra light heating oil (see col. 2, lines 18-25). The reference however does not explicitly disclose a liquid fuel comprising a Fischer-Tropsch derived fuel. Chu et al. disclose a process for the conversion of syngas to liquid hydrocarbons in a Fischer-Tropsch process. Chu et al further disclose that the hydrocarbon mixtures derived from the Fischer-Tropsch process are useful in the manufacture of heating oil (see col. 1, lines 48-61).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used heating oil derived from Fischer-Tropsch process in Wuest et al. because O'Rear discloses that Fischer-Tropsch derived fuels have very low levels of sulfur and nitrogen, have excellent burning properties, and can be used as an environmentally friendly "green fuel" (see col. 6, lines 54-67 and col. 13, lines 18-20).

5. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wuest et al. (WO 00/12935) in view of Chu et al. (US 4,471,145) and O'Rear (US 6,392,108) as applied to claim 1 above, and further in view of Cosyns et al. (US 4,133,841).

Regarding claims 2-7, Wuest et al, Chu et al. and O'Rear combined teach all of the limitations in claim 1 above. O'Rear further discloses a hydrocarbonaceous product, which the reference defined as any hydrocarbonaceous product including both petroleum-derived hydrocarbonaceous product and Fischer-Tropsch products, with additives (see col. 2, lines 15-25 and col. 4, lines 64-66). O'Rear discloses that the products from the Fischer-Tropsch process can further be processed using known processes to meet end use specifications (see col. 11, lines 1-25). O'Rear further discloses that Fischer-Tropsch derived fuels have excellent burning properties and have paraffin components > 50% and can exceed 70% and even 95%. O'Rear discloses that Fischer-Tropsch distillate fuels typically contain less than 1% ppm by weight of sulfur and generally do not contain aromatic compounds (see col. 6, lines 54-67). O'Rear

discloses the products of Fischer-Tropsch process include hydrocarbons boiling below 700° F (371° C) (see col. 11, lines 1-25).

Cosyns et al. disclose process for upgrading effluents from Fischer-Tropsch syntheses process to produce liquid fuels which are mainly gasoline, kerosene and gasoil cuts. Cosyns et al. teach that the liquid fuels from processes such as Fischer-Tropsch syntheses have the same use as oil (from oil fields, implied) and its derivatives (see col. 1, lines 5-45). Cosyns et al. further disclose Fischer-Tropsch derived products having density between 0.695 and 0.86 g/cm³ at 15° C, and products comprising kerosene cuts (200 – 250° C) and gas oil cuts (250 – 360° C) (see for example col. 14, lines 1-60 and col. 15, lines 50-66).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a liquid fuel derived from a Fischer-Tropsch process, meeting a specification of a heating oil or extra light heating oil, according to the teachings of O'Rear or Chu et al. or Cosyns et al. and generate heat by burning the liquid fuel as taught in Wuest et al, because O'Rear discloses that Fischer-Tropsch derived fuels have very low levels of sulfur and nitrogen, have excellent burning properties, and can be used as an environmentally friendly "green fuel" (see col. 6, lines 54-67 and col. 13, lines 18-20).

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wuest et al. (WO 00/12935) in view of Chu et al. (US 4,471,145), O'Rear (US 6,392,108) and Cosyns et al. (US 4,133,841) as applied to claim 7 above, and further in view of Brown et al. (US 3,607,074).

Regarding claim 8, as shown above, Wuest et al in view of Chu et al, O'Rear and Cosyns et al. meet the limitation of claim 7. The above references however do not disclose an odor marker for a liquid fuel. Brown et al. discloses an odor marker for liquid fuels (see col. 1, lines 22-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the liquid fuel of Chu et al. or O'Rear or Cosyns et al. to include odor marker according to the teaching of Brown et al. because Brown et al. teach that odor marker is a reliable and inexpensive method for identifying liquid fuels.

7. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wuest et al. (WO 00/12935) in view of Chu et al. (US 4,471,145), O'Rear (US 6,392,108) and Cosyns et al. (US 4,133,841) as applied to claim 7 above, and further in view of Thrasher et al. (US 4,932,979).

Regarding claims 9 and 10, as shown above, Wuest et al in view of Chu et al, O'Rear and Cosyns et al. meet the limitation of claim 7. The above references however do not disclose a color marker for a liquid fuel nor an additive as a flame colorant.

Thrasher et al. disclose a liquid fuel, wherein low concentrations of additives are utilized to impart color to the liquid fuel and to make the liquid fuel flame colorant (see Abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the liquid fuel of Chu et al. or O'Rear or Cosyns et al. to include color marker according to the teaching of Thrasher et al. because Thrasher et al. teach that it is advantageous to color a colorless fuel and flame for identification purposes and safety (see col. 1, lines 40-60).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Beloit et al (US 6,180,842) disclose a blended middle distillate, useful as fuels such as kerosene, diesel or as a fuel blending component, comprising a Fischer-Tropsch derived distillate and a virgin distillate fraction, and wherein the sulfur content of the blend is at least 1 ppm by wt.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lessanework T. Seifu whose telephone number is 571-270-3153. The examiner can normally be reached on Mon-Thr 7:00am-5:30pm.

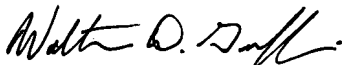
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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LS


WALTER D. GRIFFIN
SUPERVISORY PATENT EXAMINER